

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~.

Please AMEND claims 1, 3, 4, 9, 11, 12, 14, 15, 20, 22, 25-30 and ADD new claims 30 and 31 in accordance with the following:

1. (CURRENTLY AMENDED) A plasma display panel, comprising:
a plurality of discharge electrodes arranged on an interior main surface of a front substrate, an exterior main surface thereof comprising a display surface, each of said discharge electrodes comprising a bus electrode and a transparent electrode connected to said bus electrode and extending in a longitudinal direction, opposing portions of adjacent discharge electrodes, spaced in a lateral direction, defining corresponding discharge cells; and
shielding parts, each extending at least in part over each a respective discharge cell, to shield incident light from an exterior of the front substrate, which is incident on the shielding part, from entering the respective discharge cell, each shielding part formed on a corresponding said transparent electrode and disposed laterally of the corresponding bus electrode.

2. (PREVIOUSLY PRESENTED) The plasma display panel according to claim 1, wherein said shielding parts are formed within the cells, other than between the corresponding, opposing portions of adjacent discharge electrodes defining respective cells, in conformity with portions having low luminescent intensity.

3. (CURRENTLY AMENDED) A plasma display panel, comprising:
a plurality of discharge electrodes arranged on an interior main surface of a front substrate, an exterior main surface thereof comprising a side of a display surface, each of said discharge electrodes having a bus electrode and a transparent electrode connected to said bus electrode and extending in a longitudinal direction, opposing portions of adjacent discharge electrodes, spaced in a lateral direction, defining corresponding discharge cells;
shielding parts to shield incident light from an exterior of the front substrate, each shielding part formed on a corresponding said transparent electrode and disposed laterally of and not connected to the corresponding bus electrode;
a rear substrate having an interior main surface facing the interior main surface of said front substrate, with a discharge space therebetween;
a plurality of address electrodes parallel to each other, and extending along said rear

substrate in a direction orthogonal to said discharge electrodes;

cells, in which light is emitted, wherein:

each cell includes narrow projecting transparent electrode parts projecting laterally toward the center of the cell; and having respective, opposing parts at tips of said projecting parts extending longitudinally; and

each shielding part extending at least in part over a respective discharge cell to shield light from an exterior of the front substrate, which is incident on the shielding part, from entering the respective discharge cell.

~~said shielding parts are formed on at least one of said projecting parts and said opposing parts, in correspondence to regions having low luminescent intensity relatively to each region having high luminescent intensity and existing between the laterally disposed opposing parts at which gaseous discharges producing light emission are generated.~~

4. (CURRENTLY AMENDED) A plasma display panel, comprising:

a plurality of discharge electrodes arranged on an interior main surface of a front substrate, an exterior main surface thereof comprising a side of a display surface, each of said discharge electrodes having a bus electrode and a transparent electrode connected to said bus electrode and extending in a longitudinal direction, opposing portions of adjacent discharge electrodes, spaced in a lateral direction, defining corresponding discharge cells;

shielding parts to shield incident light from an exterior of the front substrate, each shielding part formed on a corresponding said transparent electrode and disposed laterally of the corresponding bus electrode;

a rear substrate having an interior main surface facing the interior main surface of said front substrate, with a discharge space therebetween;

a plurality of address electrodes parallel to each other, and extending along said rear substrate in a direction orthogonal to said discharge electrodes; and

cells, in which light is emitted, wherein:

each cell includes narrow projecting transparent electrode parts projecting laterally toward the center of the cell and having respective, opposing parts at tips of said projecting parts extending longitudinally; ~~and,~~

~~said shielding parts are formed on the surfaces of said projecting parts and of connections thereof to the respective opposing parts, in correspondence to regions having lower luminescent intensity relatively to each regions having higher luminescent intensity; and existing between the laterally disposed opposing parts at which gaseous discharges producing light emission are generated~~

each shielding part extending at least in part over a respective discharge cell to shield light from an exterior of the front substrate, which is incident on the shielding part, from entering the respective discharge cell.

5. (PREVIOUSLY PRESENTED) The plasma display panel according to claim 4, further comprising a rib formed along spaces between said address electrodes wherein said shielding parts are formed on said opposing parts, each of the shielding parts formed between said rib and the center of said opposing part.

6. (PREVIOUSLY PRESENTED) The plasma display panel according to claim 4, wherein said shielding parts are formed on said opposing parts, at the sides closer to said bus electrodes.

7. (ORIGINAL) The plasma display panel according to claim 1, wherein said shielding parts are formed of the same material as that of said bus electrodes.

8. (CANCELED)

9. (CURRENTLY AMENDED) A plasma display panel, comprising:
a plurality of discharge electrodes arranged on an interior main surface of a front substrate, an exterior main surface thereof comprising a display surface, each of said discharge electrodes comprising a bus electrode and a transparent electrode connected to said bus electrode and extending in a longitudinal direction, opposing portions of adjacent discharge electrodes, spaced in a lateral direction, defining corresponding discharge cells; and
shielding parts to shield incident light from an exterior of the front substrate, each shielding part formed on a corresponding said transparent electrode and disposed laterally of the corresponding bus electrode, wherein:

a plurality of cells, which are units discharge-generated light is emitted in, are formed along said discharge electrodes neighboring each other; and,

said shielding parts formed respectively in said cells have different areas, depending on the luminescent colors of said cells, and

each shielding part extending at least in part over a respective discharge cell to shield light from an exterior of the front substrate, which is incident on the shielding part, from entering the respective discharge cell.

10. (ORIGINAL) The plasma display panel according to claim 9, wherein:
said cells include blue cells for emitting blue light; and
said shielding part formed in each of said blue cells have an area smaller than areas of
said shielding parts formed in other cells.

11. (CURRENTLY AMENDED) A plasma display panel, comprising:
a plurality of discharge electrodes arranged on an interior main surface of a front
substrate, an exterior main surface thereof comprising a display surface, each of said discharge
electrodes comprising a bus electrode and a transparent electrode connected to said bus
electrode and extending in a longitudinal direction, opposing portions of adjacent discharge
electrodes, spaced in a lateral direction, defining corresponding discharge cells; and
shielding parts to shield incident light from an exterior of the front substrate, each
shielding part formed on a corresponding said transparent electrode and disposed laterally of the
corresponding bus electrode, wherein:
a plurality of cells of respective and different, plural colors of light emission define a
single pixel, each pixel including a cell emitting blue light and other cells emitting other color
lights;
said shielding part in said blue cells of each pixel is of a smaller area than the respective
shielding parts in the other color cells of the pixel; and
said respective shielding parts in said cells of each pixel are formed in correspondence
to regions of low intensity, each shielding part extending at least in part over a respective
discharge cell to shield light from an exterior of the front substrate, which is incident on the
shielding part, from entering the respective discharge cell.

12. (CURRENTLY AMENDED) A plasma display panel, comprising:
a plurality of discharge electrodes arranged on an interior main surface of a front
substrate, an exterior main surface thereof comprising a display surface, each of said discharge
electrodes having a bus electrode and a transparent electrode connected to said bus electrode
and extending in a longitudinal direction, opposing portions of adjacent discharge electrodes,
spaced in a lateral direction, defining corresponding discharge cells, each said discharge
electrode being capable of discharging, alternately, with each of the adjacent electrodes; and
~~shielding parts to shield incident light from an exterior of the front substrate, each
shielding part formed along said front substrate, and disposed laterally of and not connected to~~

the corresponding bus electrodes, each shielding part extending at least in part over a respective discharge cell to shield light from an exterior of the front substrate, which is incident on the shielding part, from entering the respective discharge cell.

13. (PREVIOUSLY PRESENTED) The plasma display panel according to claim 12, wherein said shielding parts are formed within the cells, other than between the corresponding, opposing portions of adjacent discharge electrodes defining respective cells, in conformity with portions having low luminescent intensity.

14. (CURRENTLY AMENDED) A plasma display panel, comprising:

a plurality of discharge electrodes arranged on an interior main surface of a front substrate, an exterior main surface thereof comprising a side of a display surface, each of said discharge electrodes having a bus electrode and a transparent electrode connected to said bus electrode and extending in a longitudinal direction, opposing portions of adjacent discharge electrodes, spaced in a lateral direction, defining corresponding discharge cells, each said discharge electrode being capable of discharging, alternately, with each of the adjacent electrodes;

shielding parts to shield incident light from an exterior of the front substrate, each shielding part formed on a corresponding said transparent electrode and disposed laterally of and not connected to the corresponding bus electrode;

a rear substrate facing said front substrate, with a discharge space in between;

a plurality of address electrodes parallel to each other, and placed along said rear substrate in a direction orthogonal to said discharge electrodes;

cells in which light is emitted, wherein each cell includes narrow projecting transparent electrode parts projecting laterally toward the center of the cell and having respective, opposing parts at tips of said projecting parts extending longitudinally; and

said shielding parts are formed on at least one of said projecting parts and said opposing parts, in correspondence to regions having lower luminescent intensity relatively to each region having higher luminescent intensity ~~and existing between the laterally disposed opposing parts at which gaseous discharges producing light emission are generated;~~ and

each shielding part extending at least in part over a respective discharge cell to shield light from an exterior of the front substrate, which is incident on the shielding part, from entering the respective discharge cell.

15. (CURRENTLY AMENDED) A plasma display panel, comprising:

a plurality of discharge electrodes arranged on an interior main surface of a front substrate, an exterior main surface thereof comprising a side of a display surface, each of said discharge electrodes having a bus electrode and a transparent electrode connected to said bus electrode and extending in a longitudinal direction, opposing portions of adjacent discharge electrodes, spaced in a lateral direction, defining corresponding discharge cells;

shielding parts to shield incident light from an exterior of the front substrate, each shielding part formed on a corresponding said transparent electrode and disposed laterally of the corresponding bus electrode; and

a rear substrate facing said front substrate, with a discharge space in between;

a plurality of address electrodes parallel to each other, and placed along said rear substrate in a direction orthogonal to said discharge electrodes; and

cells in which light is emitted, wherein each cell includes narrow projecting transparent electrode parts projecting laterally toward the center of the cell and having respective, opposing parts at tips of said projecting parts extending longitudinally, wherein:

said shielding parts are formed on the surfaces of said projecting parts and of connections thereof to the respective opposing parts, in correspondence to regions having lower luminescent intensity relatively to each region having higher luminescent intensity ~~and existing between the laterally disposed opposing parts at which gaseous discharges producing light emission are generated;~~ and

each shielding part extending at least in part over a respective discharge cell to shield light from an exterior of the front substrate, which is incident on the shielding part, from entering the respective discharge cell.

16. (ORIGINAL) The plasma display panel according to claim 14, further comprising a rib formed along spaces between said address electrodes wherein said shielding parts are formed on said opposing parts, each of the shielding parts formed between said rib and the center of said opposing part.

17. (ORIGINAL) The plasma display panel according to claim 14, wherein said shielding parts are formed on said opposing parts, at the sides closer to said bus electrodes.

18. (ORIGINAL) The plasma display panel according to claim 12, wherein said shielding parts are formed of the same material as that of said bus electrodes.

19. (CANCELED)

20. (CURRENTLY AMENDED) A plasma display panel, comprising:

a plurality of discharge electrodes arranged on an interior main surface of a front substrate, an exterior main surface thereof comprising a display surface, each of said discharge electrodes having a bus electrode and a transparent electrode connected to said bus electrode and extending in a longitudinal direction, opposing portions of adjacent discharge electrodes, spaced in a lateral direction, defining corresponding discharge cells, each said discharge electrode being capable of discharging, alternately, with each of the adjacent electrodes; and shielding parts to shield incident light from an exterior of the front substrate, each shielding part formed along said front substrate, and disposed laterally of the corresponding bus electrode, wherein:

a plurality of cells, which are units discharge-generated light is emitted in, are formed along said discharge electrodes neighboring each other; and

said shielding parts formed respectively in said cells have different areas, depending on the luminescent colors of said cells; and

each shielding part extending at least in part over a respective discharge cell to shield light from an exterior of the front substrate, which is incident on the shielding part, from entering the respective discharge cell.

21. (ORIGINAL) The plasma display panel according to claim 20, wherein:

said cells include blue cells for emitting blue light; and

said shielding part formed in each of said blue cells have an area smaller than areas of said shielding parts formed in other cells.

22. (CURRENTLY AMENDED) A plasma display panel, comprising:

a plurality of discharge electrodes arranged on an interior main surface of a front substrate, an exterior main surface thereof comprising a display surface, each of said discharge electrodes having a bus electrode and a transparent electrode connected to said bus electrode and extending in a longitudinal direction, opposing portions of adjacent discharge electrodes, spaced in a lateral direction, defining corresponding discharge cells, each said discharge electrode being capable of discharging, alternately, with each of the adjacent electrodes; and

shielding parts to shield incident light from an exterior of the front substrate, each shielding part formed along said front substrate, and disposed laterally of the corresponding bus electrode, wherein:

a plurality of cells of respective and different, plural colors of light emission define a single pixel, each pixel including a cell emitting blue light and other cells emitting other color lights; ~~and~~

said shielding part in said blue cells of each pixel being of a smaller area than the respective shielding parts in the other color cells of the pixel; and

said respective shielding parts in said cell of each pixel are formed in correspondence to regions of low intensity, each shielding part extending at least in part over a respective discharge cell to shield light from an exterior of the front substrate, which is incident on the shielding part, from entering the respective discharge cell.

23. (PREVIOUSLY PRESENTED) The plasma display panel according to claim 3, wherein each of said opposing parts are wider than each of said projecting parts.

24. (PREVIOUSLY PRESENTED) The plasma display panel according to claim 14, wherein each of said opposing parts are wider than each of said projecting parts.

25. (CURRENTLY AMENDED) A plasma display panel, comprising:

front and rear substrates having opposing, interior surfaces spaced to define a discharge gap therebetween and an exterior surface of the front substrate defining a display surface;

a plurality of discharge electrodes arranged on the interior surface of the front substrate, each discharge electrode comprising a bus electrode and a transparent electrode connected to the bus electrode, adjacent, opposed portions of the transparent electrodes defining corresponding discharge cells that are spaced in the longitudinal direction;

each discharge cell having at least one region of highest luminescent intensity in the vicinity of the opposing portions of the transparent, opposed electrodes and regions of relatively lower luminescent intensity within each discharge cell; and

a shielding part disposed on the transparent electrode in each respective discharge cell and disposed laterally of and not connected to the corresponding bus electrode, to shield incident light from the exterior of the panel which is incident on the shielding part, from entering the respective cell in at least a selected said region thereof of relatively lower luminescent intensity.

26. (CURRENTLY AMENDED) A plasma display panel, comprising:

front and rear substrates having opposing, interior surfaces spaced to define a discharge gap therebetween and an exterior surface of the front substrate defining a display surface;

a plurality of discharge electrodes arranged on the interior surface of the front substrate, each discharge electrode comprising a bus electrode and a transparent electrode connected to the bus electrode, adjacent, opposed portions of the transparent electrodes defining corresponding discharge cells that are spaced in the longitudinal direction;

each discharge cell having at least one region of highest-higher luminescent intensity in the vicinity of the opposing portions of the transparent, opposed electrodes and regions of relatively lower luminescent intensity within each cell; and

a shield part disposed on the transparent electrode in each cell and disposed laterally of the corresponding bus electrode, each shielding part extending at least in part over a respective discharge cell to shield light from an exterior of the front substrate, which is incident on the shielding part, from entering the respective discharge cell to shield incident light from the exterior of the panel in at least a selected said region of relatively lower luminescent intensity;

wherein the transparent electrodes further comprise:

a projecting, narrow part extending laterally from the bus electrode;

an opposing part integrally formed with the narrow projecting part at a tip thereof and extending longitudinally, parallel to the bus electrode; and

in each said cell, the shielding part is formed on at least the projecting, narrow part.

27. (CURRENTLY AMENDED) A plasma display panel, comprising:

a plurality of discharge electrodes arranged on an interior main surface of a front substrate, an exterior main surface ~~thereof of the front substrate~~ comprising a display surface, each of said discharge electrodes comprising a bus electrode and a transparent electrode, connected to said bus electrode and commonly extending therewith in a longitudinal direction, ~~opposing portions of adjacent discharge electrodes, spaced in a lateral direction, defining corresponding discharge cells~~ adjacent discharge electrodes having parallel, continuous edges in spaced relationship and opposing, longitudinally spaced portions of the edges being aligned with corresponding discharge cells, each discharge cell having first regions of higher, generally common luminescent intensities and second regions of lower luminescent intensities; and

shielding parts to shield incident light from an exterior of the front substrate and incident on the shielding parts from entering the respective discharge cells, each shielding part being formed on a corresponding said transparent electrode in association with the corresponding discharge cell and enlarged in the lateral direction, relatively to disposed lateral to the corresponding bus electrode, formed in correspondence to a so as to overlie the second regions having low of lower luminescent intensity, and having an edge longitudinal of a configuration corresponding to a border between the first and second regions, respectively of the higher and

~~the lower outlined by areas of discharge generated light having the same luminescent intensities.~~

28. (CURRENTLY AMENDED) The plasma display panel according to claim 27, wherein said shielding parts are formed in longitudinally spaced relationship, alternating with aligned portions of a respective integrally with said bus electrodes, the aligned portions integrally interconnecting the spaced shielding parts.

29. (CURRENTLY AMENDED) A plasma display panel, comprising:
a plurality of discharge electrodes arranged on an interior main surface of a front substrate, an exterior main surface thereof comprising a display surface, each of said discharge electrodes comprising a bus electrode and a transparent electrode connected to said bus electrode and extending in a longitudinal direction, opposing portions of adjacent discharge electrodes, spaced in a lateral direction, defining corresponding discharge cells, discharges being produced in each discharge cell generating light in a pattern of differing luminescent intensities comprising at least first and second ~~portions~~ regions of respectively relatively higher and lower luminescent intensities in each discharge cell, the first ~~portion~~ regions of each discharge cell of substantially common the relatively higher luminescent intensities and being surrounded by the second portions of relatively lower luminescent intensities and defining a border therebetween; and

shielding parts formed of the material of the bus electrodes, ~~and~~ disposed with the respective bus electrodes on corresponding transparent electrodes ~~associated with the respective bus electrodes extending in the longitudinal direction~~ and aligned in opposed pairs with respective discharge cells, opposed edges of each pair of opposed shielding parts having configurations defining a relatively larger space therebetween corresponding to, and thereby permitting light to exit from, the first ~~portion~~ regions of relatively higher luminescent intensities each cell, and a relatively smaller space therebetween, corresponding to, and thereby shielding incident light from an exterior of the front substrate from entering the discharge cell in the second ~~portion~~ region of relatively lower luminescent intensities, to improve a bright room contrast ratio of the plasma display panel.

30. (CURRENTLY AMENDED) A plasma display panel, comprising:

a plurality of discharge electrodes arranged on an interior main surface of a front substrate, an exterior main surface thereof comprising a display surface, each of said discharge electrodes comprising a bus electrode and a transparent electrode connected to said bus electrode and extending in a longitudinal direction, opposing portions of adjacent discharge electrodes, spaced in a lateral direction, defining corresponding discharge cells; and

shielding parts to shield ~~incident~~ light from an exterior of the front substrate, which is incident on the shielding part, from entering the respective discharge cells, each shielding part being formed on a corresponding said transparent electrode, disposed laterally to the corresponding bus electrode, and a part of an outline of each of the shielding parts being formed along an outline of a discharge area.

31. (NEW) A plasma display panel, comprising:

a plurality of discharge electrodes arranged on an interior main surface of a front substrate, an exterior main surface thereof comprising a display surface, each of said discharge electrodes comprising a bus electrode and a transparent electrode connected to said bus electrode and extending in a longitudinal direction, opposing portions of adjacent discharge electrodes, spaced in a lateral direction, defining corresponding discharge cells; and

plural shielding parts, spaced longitudinally along the bus electrode in alignment with respective discharge cells and of increased lateral dimensions, relatively to a lateral dimension of the corresponding bus electrode, so as to extend over corresponding portions of the respective discharge cells and each shielding part shielding light from an exterior of the front substrate which is incident on the shielding part, from entering the respective discharge cell.

32. (NEW) The plasma display panel according to claim 31, wherein plural said shielding parts are formed in longitudinally spaced relationship, alternating with aligned portions of a respective bus electrode, the aligned bus electrode portions integrally nterconnecting respective, spaced shielding parts.